



Spring 2018 MCAS Tests: Summary of State Results

September 2018

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I. Introduction

The Massachusetts Comprehensive Assessment System (MCAS) is the Commonwealth's standards-based student assessment program. This report summarizes the state-level results from the spring 2018 administration of MCAS tests in English Language Arts (ELA), Mathematics, and Science and Technology/Engineering (STE). The report examines trends in state results and analyzes changes in academic achievement gaps between demographic groups. For information on school- and district-level MCAS results, please visit the [School and District Profiles website](#).

Which MCAS Tests Were Administered in 2018?

In 2018, Massachusetts continued the process of transitioning the MCAS program to next-generation tests. The next-generation tests include new test designs and item types and are intended to be administered primarily via computer, though the Department is making paper-based versions available during the transition period and will offer paper-based tests on an ongoing basis as an accommodation for some students.

Table 1 shows which MCAS tests were administered at each grade level in spring 2018 and whether the tests were next-generation (NG) or legacy (L) assessments. Note that the STE tests at grades 5 and 8 were administered primarily by computer but were considered legacy tests because the test designs and operational item types followed the format of previous legacy assessments.

Table 1: Spring 2018 MCAS Tests Administered, by Grade Level

Content Area	Grade Level							
	3	4	5	6	7	8	9	10
English Language Arts	NG	NG	NG	NG	NG	NG		L
Mathematics	NG	NG	NG	NG	NG	NG		L
Science and Technology/Engineering			L			L	L ^a	L ^a

^aStudents may take one of four high school STE tests offered in Biology, Chemistry, Introductory Physics, and Technology/Engineering in grade 9 or grade 10. Results of the grade 9 and 10 tests are summarized and reported in grade 10.

Who Participated in MCAS in 2018?

All students who are enrolled in the tested grades and who are educated at public expense are required by state and federal law to participate in MCAS testing. In spring 2018, a total of 499,377 students in grades 3–8 and 10 participated in at least one MCAS test. On individual tests, the percentage of enrolled students who participated was consistently high, ranging from 98 to 100 percent. These figures include regular education students, students with disabilities, and English learner students.

Section V of this report provides detailed information about the demographics of the student population that was eligible to participate in MCAS testing in 2018, and summarizes changes to the population between 2017 and 2018. For additional information on state-level MCAS participation, go to the [Assessment section of the State Profile](#) on the School and District Profiles website and select “Participation Report.”

MCAS-Alt Participation

Students with significant cognitive disabilities who are unable to take the standard MCAS tests, even with accommodations, are required to participate in the [MCAS Alternate Assessment](#) (MCAS-Alt). The

MCAS-Alt enables these students to submit portfolios of their work that demonstrate their performance on the curriculum framework learning standards. The number of students who took the MCAS-Alt in 2018 is as follows:

ELA: 7,409 students

Math: 7,507 students

STE: 3,022 students

What Were the Administration Guidelines for the Spring 2018 MCAS Tests?

Table 2 provides information about the spring 2018 test administrations, including administration dates, numbers of sessions, and recommended testing times. All MCAS test administrations are untimed. The Department provides recommended session lengths to assist schools with planning.

Table 2: Spring 2018 MCAS Test Administrations

Test	Administration Dates	Number of Sessions	Recommended Testing Time for Spring 2018
ELA Grades 3–8	April 2–May 4 ^a	2	120 minutes per session
ELA Grade 10—Composition	March 27	2	45 minutes per session
ELA Grade 10—Reading Comprehension	March 28–29	3	45 minutes per session
Mathematics Grades 3–8	April 3–May 25 ^a	2	90 minutes per session
Mathematics Grade 10	May 23–24	2	60 minutes per session
STE Grades 5 and 8	April 4–May 25 ^a	2	60 minutes per session
STE High School	June 6–7	2	60 minutes per session

^aAt grades 3–8, schools scheduled tests within a testing window.

MCAS test sessions are composed of a variety of questions types, and the number of questions and score points varies by grade and subject. See the [MCAS test designs](#) for detailed information.

How Are MCAS Results Reported?

Student results on the MCAS tests are reported using scaled scores and achievement levels. Students receive a separate score and attain a separate achievement level in each subject area. In this report, performance at the state level is summarized using the percentage of students attaining each achievement level. For reporting next-generation results, a second metric is also used: the average scaled score for the student group being evaluated. The sections below provide more information about these metrics.

Achievement Levels

In March 2017, the Board of Elementary and Secondary Education adopted new achievement levels for the next-generation tests at grades 3–8. These next-generation achievement levels differ from the legacy MCAS achievement levels and are reported using a different scale. The next-generation achievement levels are designed to provide an indication of whether a student is on-track to succeed in the subject matter and whether extra academic assistance may be needed for the student.

Table 3 presents the achievement levels and scaled scores for the next-generation ELA and Mathematics tests at grades 3–8. Table 4 presents the achievement levels and scaled scores for the legacy MCAS tests, which in 2018 included the grade 10 ELA and Mathematics tests and all STE tests.

Because next-generation MCAS tests are scored on a different scale from the legacy tests, **next-generation scores should not be compared to legacy scores**. In this report, 2018 results from the next-generation ELA and Mathematics tests at grades 3–8 are compared to results from 2017, the first year of next-generation testing. They are not compared to results from 2016 or prior years.

Table 3: Next-Generation MCAS Achievement Levels

Achievement Level	Scaled Score Range	Definition
<i>Exceeding Expectations</i>	530–560	A student who performed at this level exceeded grade-level expectations by demonstrating mastery of the subject matter.
<i>Meeting Expectations</i>	500–529	A student who performed at this level met grade-level expectations and is academically on track to succeed in the current grade in this subject.
<i>Partially Meeting Expectations</i>	470–499	A student who performed at this level partially met grade-level expectations in this subject. The school, in consultation with the student’s parent/guardian, should consider whether the student needs additional academic assistance to succeed in this subject.
<i>Not Meeting Expectations</i>	440–469	A student who performed at this level did not meet grade-level expectations in this subject. The school, in consultation with the student’s parent/guardian, should determine the coordinated academic assistance and/or additional instruction the student needs to succeed in this subject.

Table 4: Legacy MCAS Achievement Levels

Achievement Level	Scaled Score Range	Definition
<i>Advanced</i>	260–280	Students at this level demonstrate a comprehensive and in-depth understanding of rigorous subject matter and provide sophisticated solutions to complex problems.
<i>Proficient</i>	240–258	Students at this level demonstrate a solid understanding of challenging subject matter and solve a wide variety of problems.
<i>Needs Improvement</i>	220–238	Students at this level demonstrate a partial understanding of subject matter and solve some simple problems.
<i>Warning / Failing</i>	200–218	Students at this level demonstrate a minimal understanding of subject matter and do not solve simple problems.

Average Scaled Scores

As shown in Table 3, students receive a scaled score between 440 and 560 for each next-generation test they take. Because of the design of the next-generation scale, the scaled scores for a group of students can be used to calculate an average (mean) scaled score, which indicates average performance for the group. Average scaled scores can be calculated at the classroom, school, district, or state level, or for student subgroups.

In sections III and IV of this report, average scaled scores are used to summarize and compare student achievement on the next-generation tests. A benefit of using average scaled scores is that the performance of *all* students in the group contributes to the measure. Note that average scaled scores are not reported for legacy tests, as the legacy scale was not designed to support this metric.

How Are MCAS Results Used?

MCAS test results are used for three primary purposes: (1) to inform and improve curriculum and instruction; (2) to evaluate student, school, and district performance according to the Massachusetts curriculum framework content standards and MCAS performance standards; and (3) to determine whether a student has met the state requirements for the Competency Determination (i.e., whether a student is eligible for a high school diploma). Information about Competency Determination attainment in 2018 is presented in section VI of this report.

II. Statewide Achievement Level Results

This section reports state-level results from the spring 2018 MCAS tests by achievement level. As described on page 2, the Board of Elementary and Secondary Education adopted new achievement levels for the next-generation tests in March 2017. In the figures and tables in this section, results for the ELA and Mathematics tests at grades 3–8 are reported using the next-generation achievement levels (*Exceeding Expectations*, *Meeting Expectations*, *Partially Meeting Expectations*, *Not Meeting Expectations*). Results for all other tests are reported using the legacy achievement levels (*Advanced*, *Proficient*, *Needs Improvement*, *Warning/Failing*).

Student Achievement on Next-Generation Tests in Grades 3–8

Figure 1 shows the percentage of students scoring at each achievement level on the 2018 next-generation ELA tests.¹ The percentage of students scoring *Meeting Expectations* or higher ranged from a high of 54% at grade 5 to a low of 46% at grade 7.

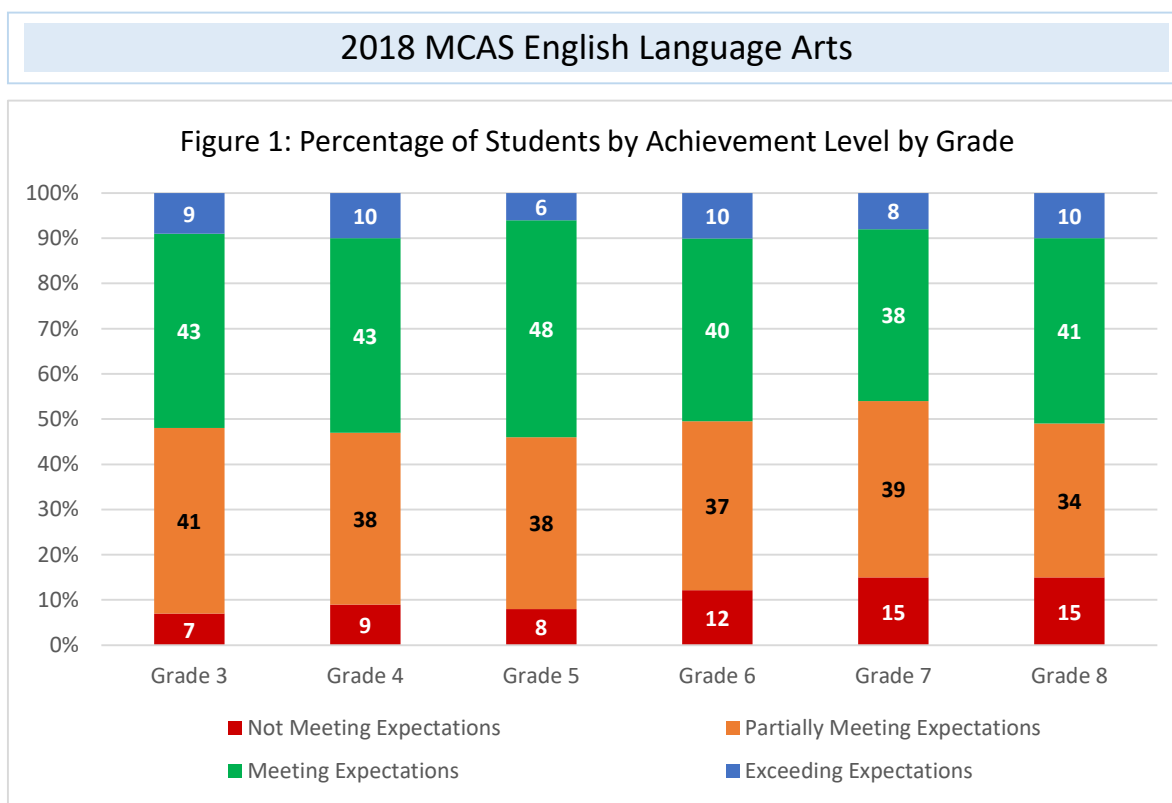


Table 5 summarizes changes in the percentage of students scoring *Meeting Expectations* or higher on the next-generation ELA tests between 2017 and 2018.

¹ Due to rounding at individual achievement levels, the percentages in this figure, and in other figures in this report, may not add up to 100%. For the same reason, when percentages for *Meeting Expectations* and *Exceeding Expectations* are aggregated to report the percentage of students at “*Meeting Expectations* or higher,” the sum of the percentages for the individual achievement levels may not equal the aggregated total.

Table 5: Percentage Changes in ELA Achievement, 2017 to 2018

Grade	Percentage of Students Scoring <i>Meeting Expectations</i> or Higher in ELA		Percentage Point Change, 2017 to 2018
	2017	2018	
Grade 3	47	52	+5
Grade 4	48	53	+5
Grade 5	49	54	+5
Grade 6	51	51	0
Grade 7	50	46	-4
Grade 8	49	51	+2
Grades 3-8	49	51	+2

Figure 2 shows the percentage of students scoring at each achievement level on the 2018 next-generation Mathematics tests. The percentage of students scoring *Meeting Expectations* or higher ranged from a high of 50% at grade 3 to a low of 46% at grades 5 and 7.

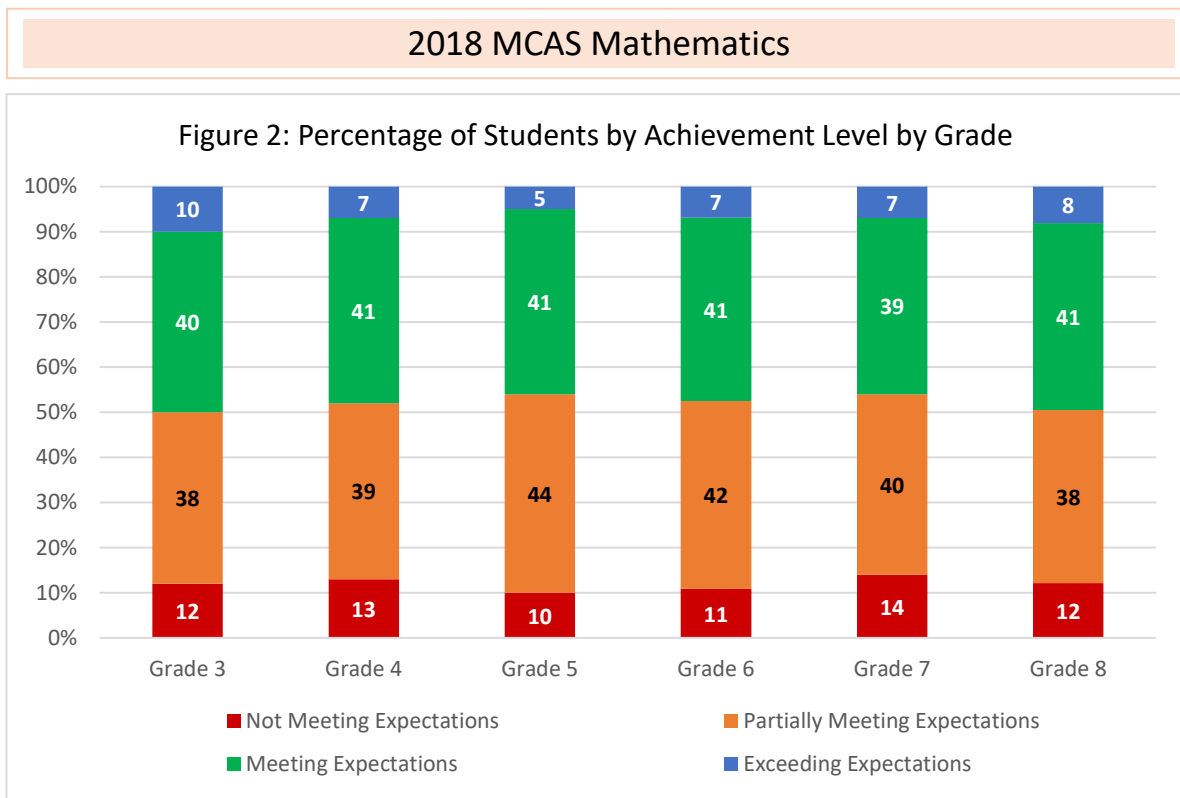


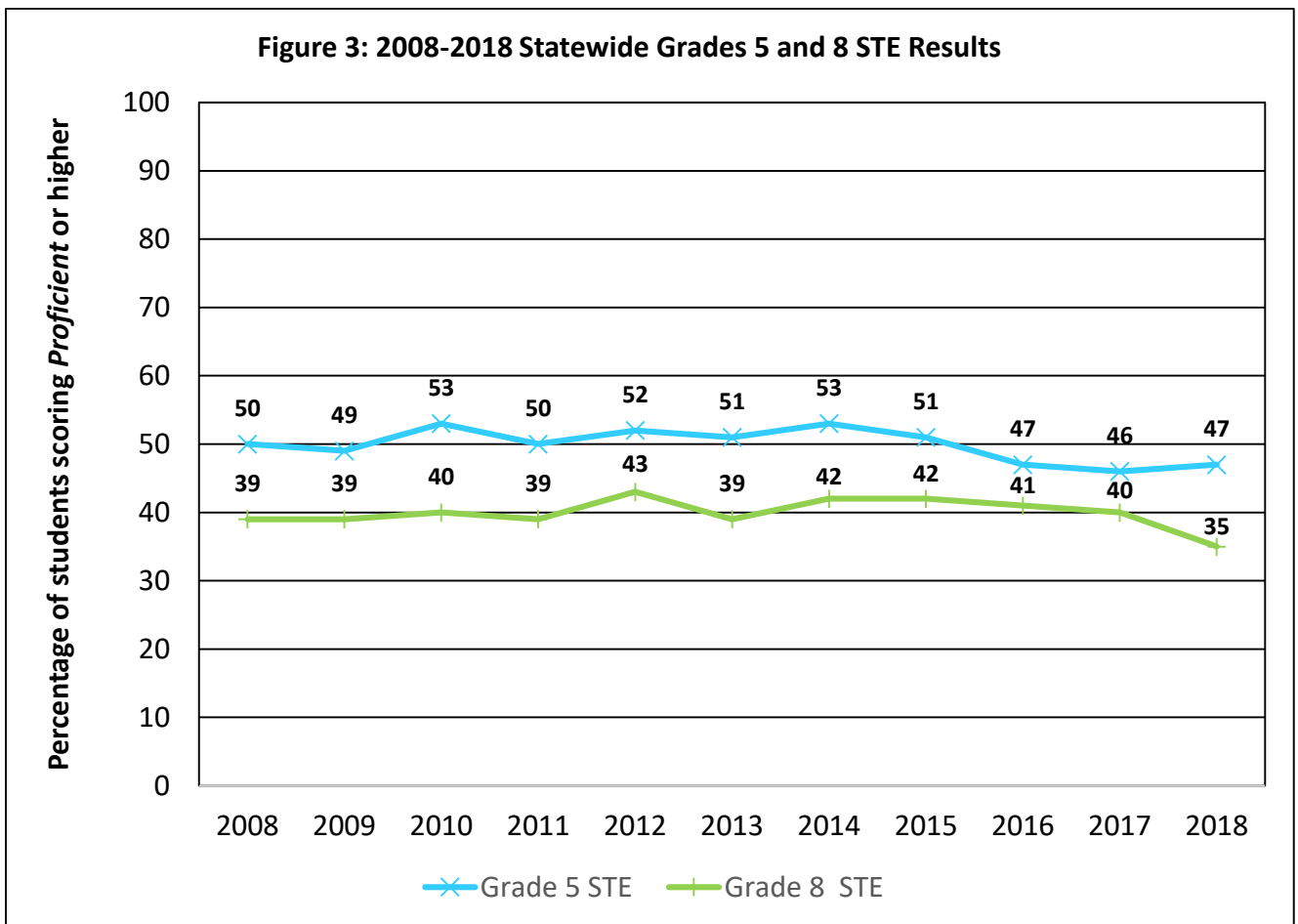
Table 6 summarizes changes in the percentage of students scoring *Meeting Expectations* or higher on the next-generation Mathematics tests between 2017 and 2018.

Table 6: Percentage Changes in Mathematics Achievement, 2017 to 2018

Grade	Percentage of Students Scoring <i>Meeting Expectations</i> or Higher in Mathematics		Percentage Point Change, 2017 to 2018
	2017	2018	
Grade 3	49	50	+1
Grade 4	49	48	-1
Grade 5	46	46	0
Grade 6	50	47	-3
Grade 7	47	46	-1
Grade 8	48	50	+2
Grades 3-8	48	48	0

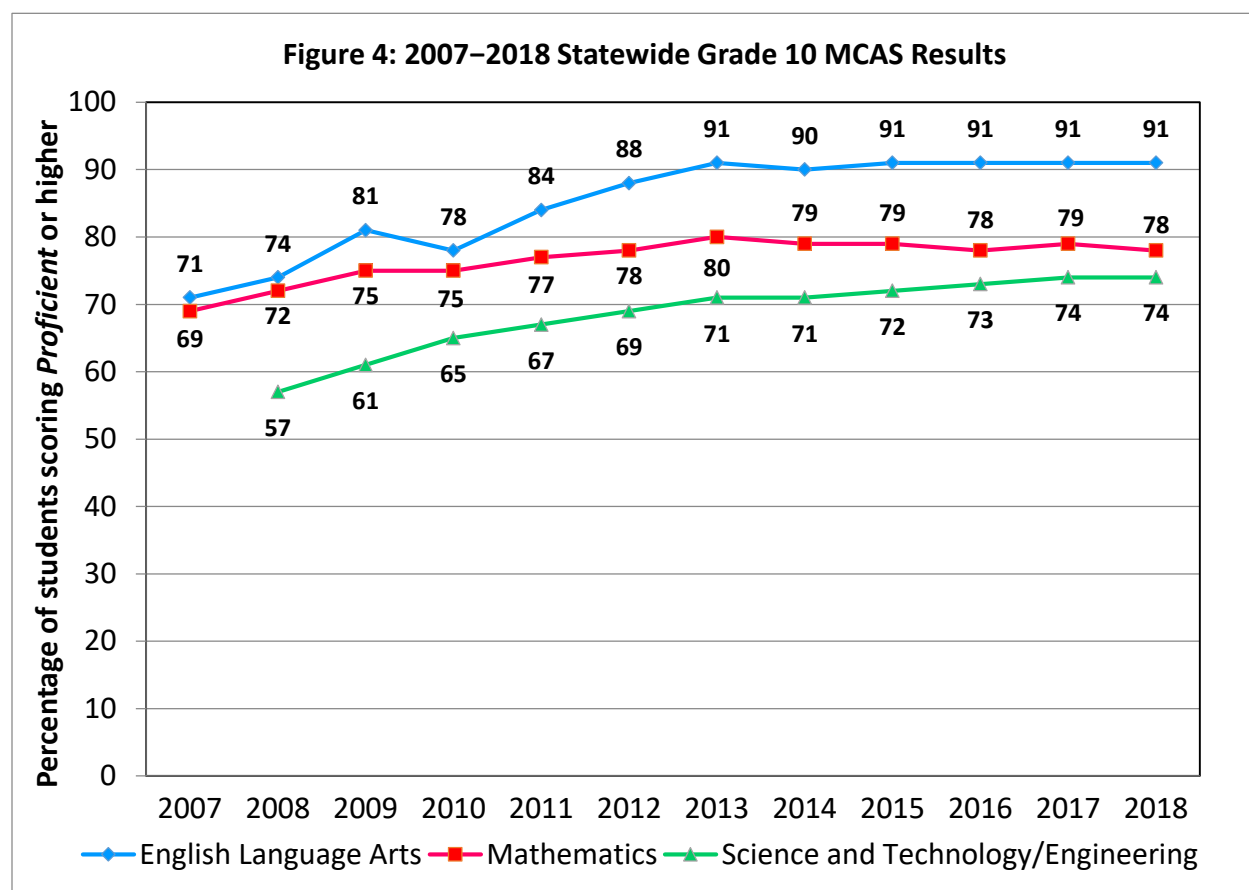
Student Achievement on Legacy STE Tests in Grades 5 and 8

Figure 3 shows the changes in the percentages of students scoring *Proficient* or higher on the grades 5 and 8 STE tests since 2008. In 2018, 47 percent of students statewide scored *Proficient* or higher on the grade 5 STE test, while 35 percent scored *Proficient* or higher on the grade 8 STE test.



Student Achievement on Legacy Tests in Grade 10

Figure 4 shows the changes in the percentages of students scoring *Proficient* or higher in grade 10 ELA and Mathematics since 2007. The figure also shows the changes in the percentage of students scoring *Proficient* or higher on the high school STE tests since 2008, the first year results were reported for those tests. In 2018, the percentages of students scoring *Proficient* or higher were 91 percent for grade 10 ELA, 78 percent for grade 10 Mathematics, and 74 percent for high school STE.



Student Achievement in Commissioner's Districts

The Department of Elementary and Secondary Education provides support through the Office of District and School Turnaround for the Commonwealth's 10 largest urban districts, sometimes referred to as the "Commissioner's Districts." The figures below summarize performance within the Commissioner's Districts on the 2018 next-generation tests at grades 3–8. For each district, the figures show the percentage of students scoring at each achievement level in ELA and Mathematics.

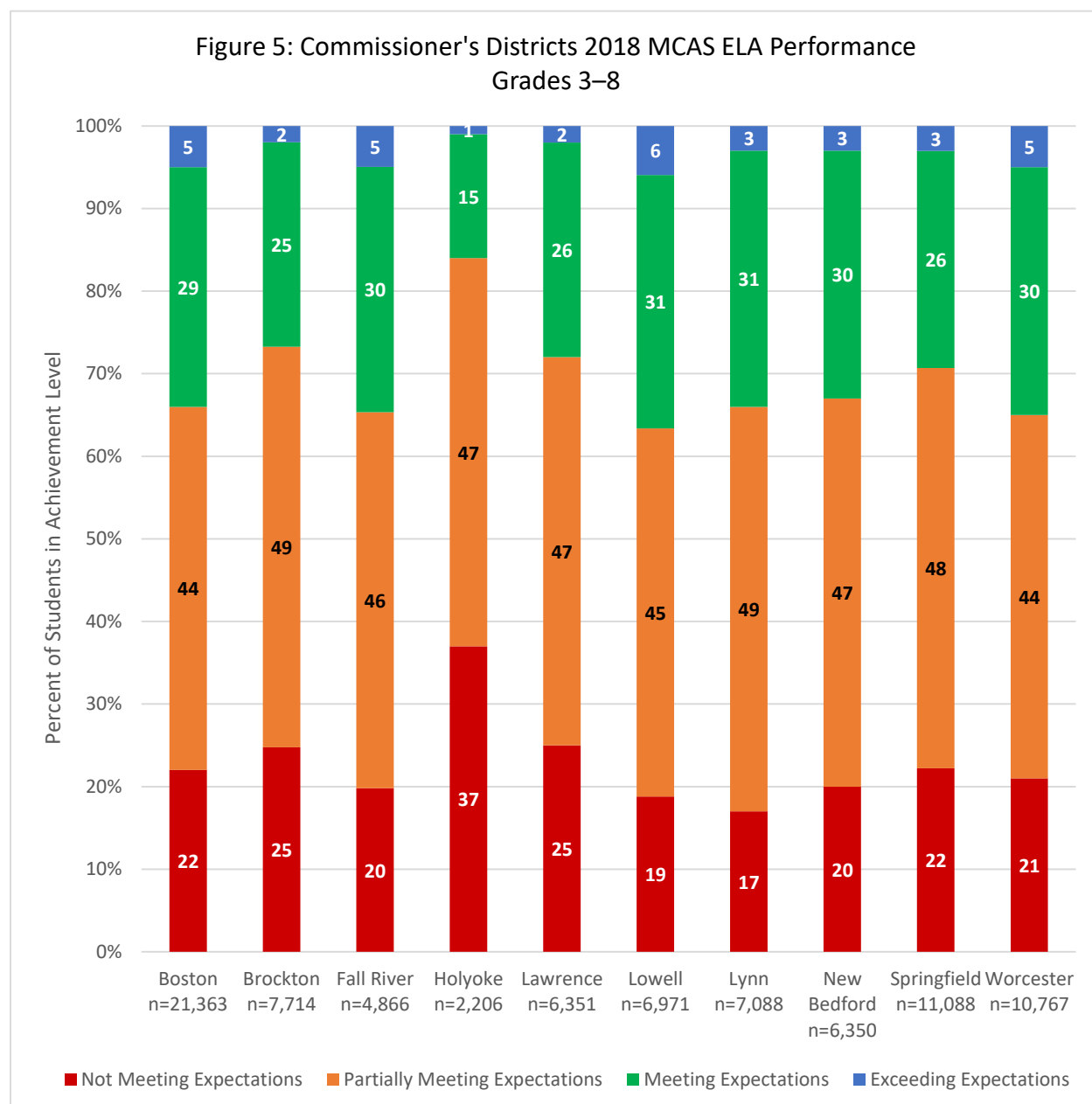
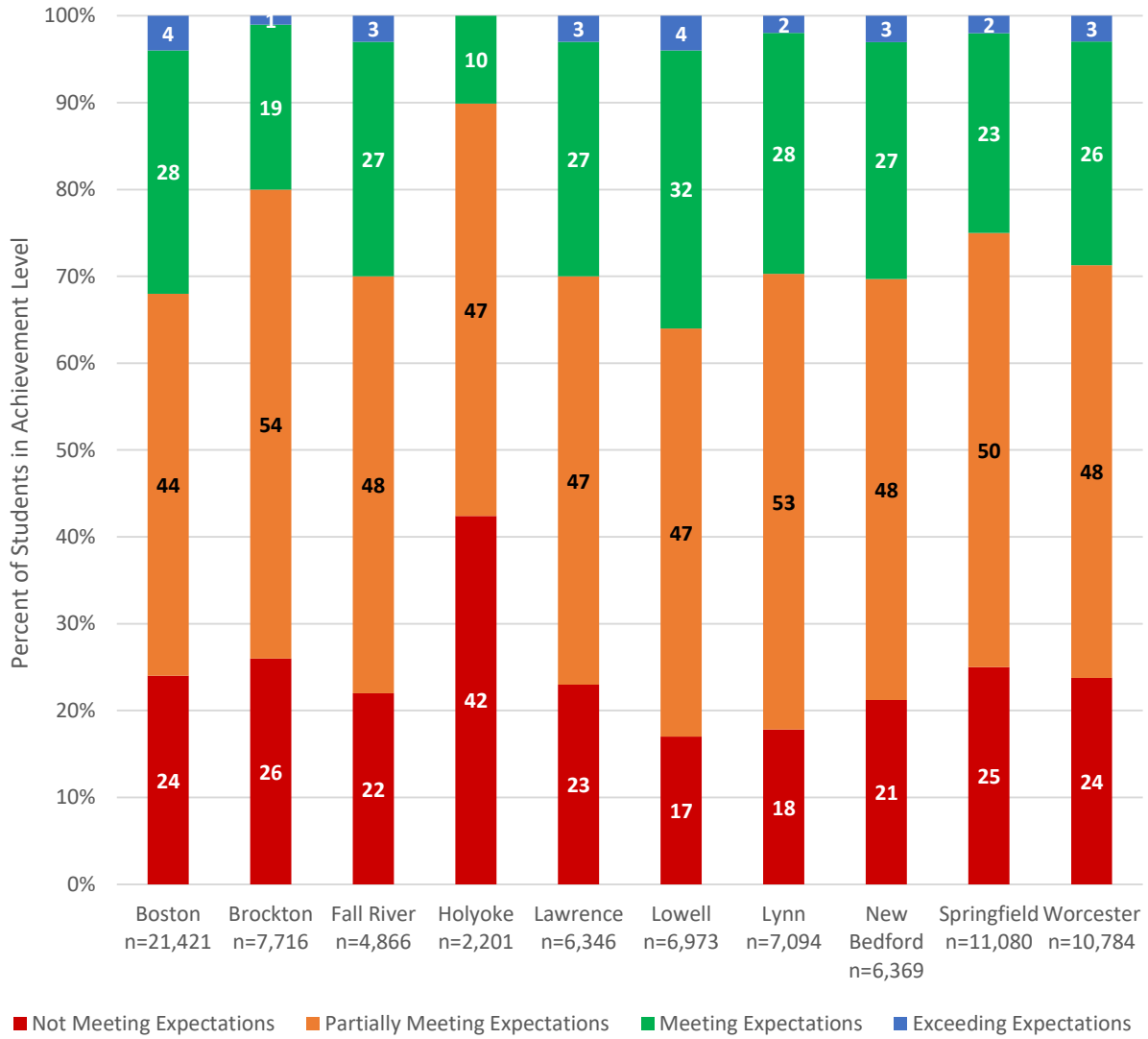


Figure 6: Commissioner's Districts 2018 MCAS Mathematics Performance
Grades 3–8



III. Statewide Scaled Score Results for Next-Generation Tests

This section reports state-level results from the spring 2018 next-generation MCAS tests by average scaled score. As described on page 3, students receive a scaled score between 440 and 560 for each next-generation test they take. The scaled scores for a group of students can be used to calculate an average (mean) scaled score, which indicates average performance for the group.² By comparing the average scaled score to the score ranges for the next-generation achievement levels, shown in Table 7, a determination can be made about whether, on average, the students in the group are meeting expectations.

Table 7: Next-Generation Achievement Levels and Scaled Scores

Achievement Level	Scaled Score Range
<i>Exceeding Expectations</i>	530–560
<i>Meeting Expectations</i>	500–529
<i>Partially Meeting Expectations</i>	470–499
<i>Not Meeting Expectations</i>	440–469

Average Scaled Scores and Standard Deviation in Grades 3–8

Table 8 shows the average scaled score for all students in the state, by grade, for next-generation ELA and Mathematics. At all grades, the average scaled score is just above or below 500, the cut point for the *Meeting Expectations* achievement level. The table also presents the standard deviation for each grade level in each subject. The standard deviation is a measure of the amount of variation in student performance.

Table 8: Average State-Level Scaled Scores and Standard Deviation, by Grade

English Language Arts				Mathematics			
Grade	Average Scaled Score	Standard Deviation	Number of Students	Grade	Average Scaled Score	Standard Deviation	Number of Students
3	502.2	20.8	68,291	3	499.9	23.3	68,401
4	501.8	21.8	70,587	4	497.9	22.5	70,613
5	501.9	20.1	71,005	5	497.5	19.7	71,034
6	501.0	23.8	69,757	6	498.6	22.1	69,750
7	497.0	23.6	69,502	7	497.5	23.5	69,479
8	499.1	25.1	70,786	8	498.8	22.6	70,790
3-8	500.5	22.7	419,928	3-8	498.4	22.3	420,067

Average Scaled Scores by Grade for Racial/Ethnic Groups

Table 9 shows the average scaled scores for 2017 and 2018, in ELA and Math, for the state's largest racial/ethnic reporting groups. The data illustrate the change in performance for each group over the first two years of the next-generation program, and allow for comparisons between groups and

² Due to rounding, average scaled scores in this report may differ in some instances by one-tenth of a point from average scaled scores reported in the Department's online systems.

between grade levels. Grades 3–8 results for other student groups, including grade-level results, are available in the statewide [Next Generation MCAS Achievement Report](#) on the School and District Profiles website.

Table 9: Average Scaled Score by Grade for Racial/Ethnic Groups, 2017 and 2018

English Language Arts				Mathematics			
Grade	Student Group	2017	2018	Grade	Student Group	2017	2018
Grade 3	Asian	508.4	511.2	Grade 3	Asian	513.1	514.8
	Afr. Amer./Black	489.9	493.5		Afr. Amer./Black	488.4	488.5
	Hispanic or Latino	489.3	493.2		Hispanic or Latino	489.3	489.8
	White	502.2	505.5		White	502.0	503.6
Grade 4	Asian	508.3	511.8	Grade 4	Asian	512.5	512.6
	Afr. Amer./Black	489.6	492.0		Afr. Amer./Black	486.2	487.3
	Hispanic or Latino	489.7	491.8		Hispanic or Latino	488.4	488.0
	White	502.6	505.5		White	501.2	501.3
Grade 5	Asian	506.2	512.2	Grade 5	Asian	513.2	511.2
	Afr. Amer./Black	489.7	492.2		Afr. Amer./Black	488.4	487.6
	Hispanic or Latino	489.5	492.6		Hispanic or Latino	488.8	488.2
	White	502.3	505.2		White	501.7	500.6
Grade 6	Asian	509.5	513.8	Grade 6	Asian	514.9	515.7
	Afr. Amer./Black	489.4	490.1		Afr. Amer./Black	487.0	487.1
	Hispanic or Latino	488.5	489.1		Hispanic or Latino	487.5	487.1
	White	503.0	504.9		White	502.7	502.2
Grade 7	Asian	509.2	508.3	Grade 7	Asian	515.9	515.1
	Afr. Amer./Black	489.0	486.6		Afr. Amer./Black	486.0	483.8
	Hispanic or Latino	487.9	485.1		Hispanic or Latino	485.8	484.0
	White	502.5	500.8		White	502.1	501.6
Grade 8	Asian	509.8	512.2	Grade 8	Asian	515.9	516.4
	Afr. Amer./Black	489.1	486.9		Afr. Amer./Black	487.3	487.0
	Hispanic or Latino	487.6	485.6		Hispanic or Latino	488.1	486.8
	White	502.0	503.3		White	502.7	502.0
Gr. 3-8	Asian	508.5	511.6	Gr. 3-8	Asian	514.2	514.3
	Afr. Amer./Black	489.4	490.3		Afr. Amer./Black	487.2	486.9
	Hispanic or Latino	488.8	489.7		Hispanic or Latino	488.0	487.4
	White	502.4	504.2		White	502.1	501.8

Figures 7 and 8 summarize the changes in average scaled scores, from 2017 to 2018, for the state's largest student racial/ethnic reporting groups. In the figures, blue bars represent a positive change in average scaled scores for the two-year period. Red bars represent negative change.

Figure 7: Average ELA Scaled Score Point Change, 2017 to 2018, for Large Racial/Ethnic Groups

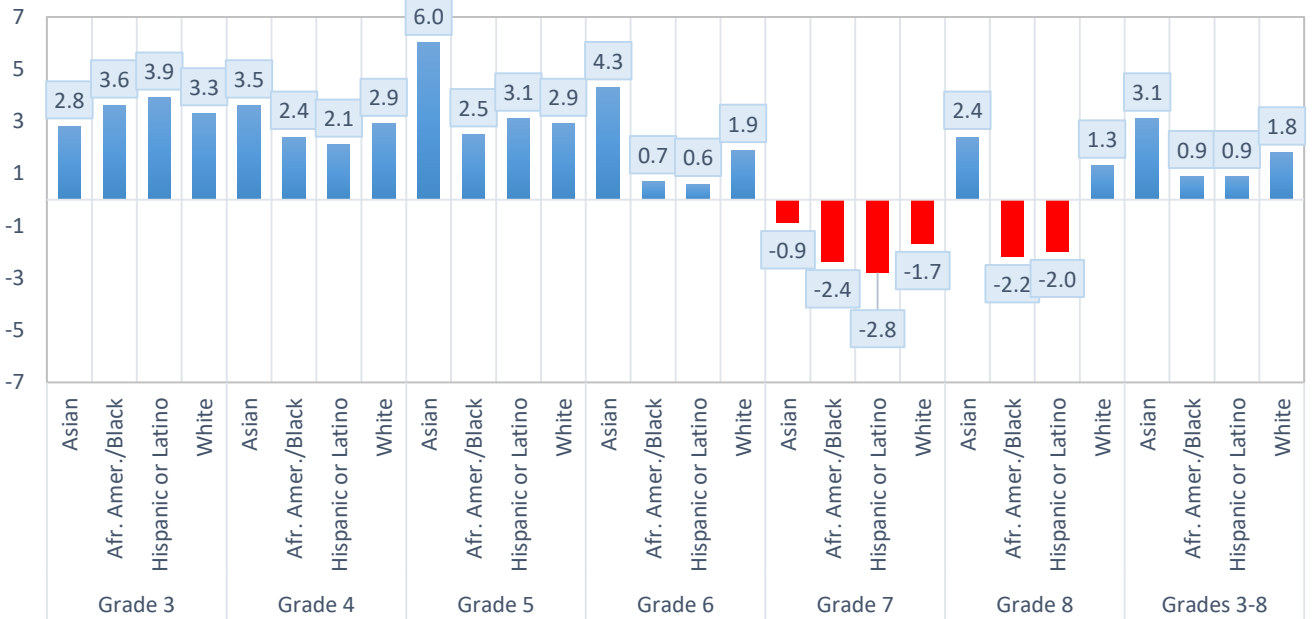
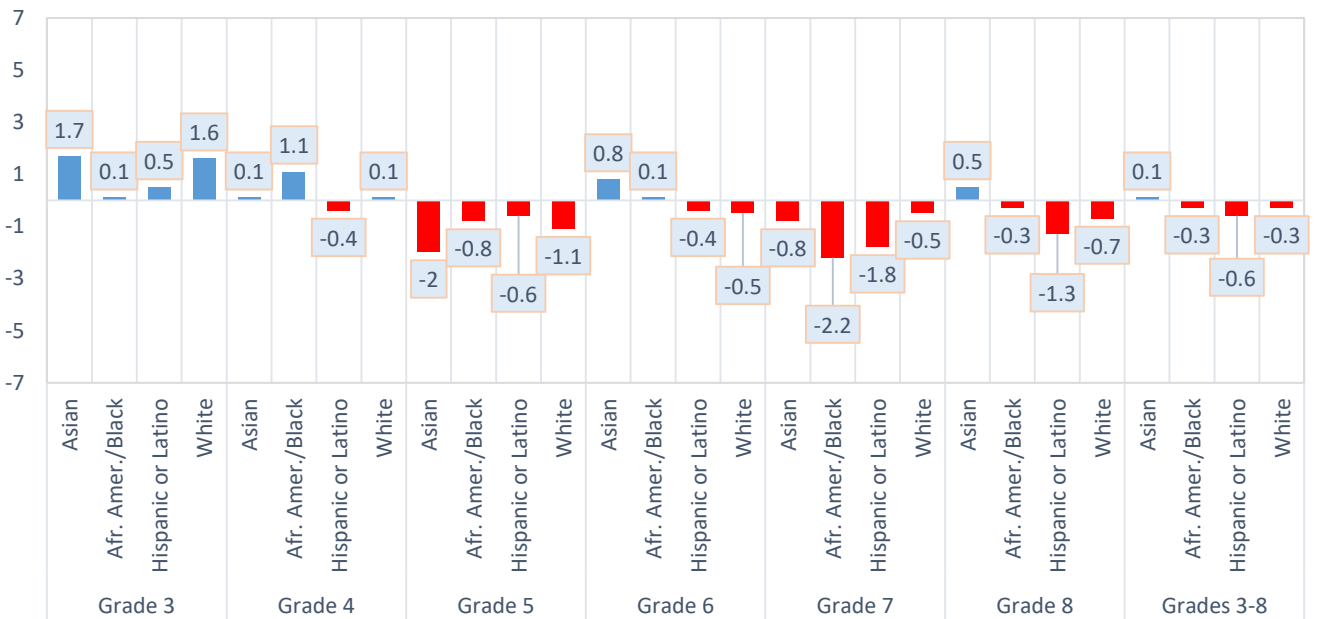


Figure 8: Average Mathematics Scaled Score Point Change, 2017 to 2018, for Large Racial/Ethnic Groups



Average Scaled Score by Grade for Special Populations

Table 10 presents the average scaled scores for 2017 and 2018, in ELA and Math, for economically disadvantaged students, English learners, and students with disabilities.

Table 10: Average Scaled Score by Grade for Special Populations, 2017 and 2018

English Language Arts				Mathematics			
Grade	Student Group	2017	2018	Grade	Student Group	2017	2018
Grade 3	Economically Disadvantaged	489.8	493.6	Grade 3	Economically Disadvantaged	489.1	489.9
	English Learner (EL)	484.0	487.1		English Learner (EL)	486.6	486.3
	Students with Disabilities	481.0	485.7		Students with Disabilities	481.2	481.8
	All Students	498.8	502.2		All Students	498.8	499.9
Grade 4	Economically Disadvantaged	489.8	492.4	Grade 4	Economically Disadvantaged	488.0	488.0
	English Learner (EL)	479.4	483.2		English Learner (EL)	481.6	482.2
	Students with Disabilities	480.9	483.6		Students with Disabilities	478.8	479.2
	All Students	499.2	501.8		All Students	498.0	497.9
Grade 5	Economically Disadvantaged	489.6	492.8	Grade 5	Economically Disadvantaged	488.8	488.3
	English Learner (EL)	478.3	480.7		English Learner (EL)	481.3	480.3
	Students with Disabilities	480.5	484.4		Students with Disabilities	481.5	480.9
	All Students	498.9	501.9		All Students	498.7	497.5
Grade 6	Economically Disadvantaged	489.0	489.7	Grade 6	Economically Disadvantaged	487.9	487.5
	English Learner (EL)	474.7	472.9		English Learner (EL)	477.1	476.0
	Students with Disabilities	480.1	479.6		Students with Disabilities	479.6	479.0
	All Students	499.4	501.0		All Students	499.2	498.6
Grade 7	Economically Disadvantaged	488.5	485.6	Grade 7	Economically Disadvantaged	486.5	484.8
	English Learner (EL)	474.0	468.5		English Learner (EL)	475.8	472.3
	Students with Disabilities	479.0	475.2		Students with Disabilities	478.2	476.5
	All Students	499.1	497.0		All Students	498.7	497.5
Grade 8	Economically Disadvantaged	488.0	486.4	Grade 8	Economically Disadvantaged	488.2	487.1
	English Learner (EL)	472.9	467.2		English Learner (EL)	477.3	475.6
	Students with Disabilities	478.3	475.9		Students with Disabilities	479.7	477.8
	All Students	498.9	499.1		All Students	499.6	498.8
Gr. 3-8	Economically Disadvantaged	489.2	490.2	Gr. 3-8	Economically Disadvantaged	488.1	487.7
	English Learner (EL)	478.4	478.7		English Learner (EL)	481.1	480.1
	Students with Disabilities	480.0	480.8		Students with Disabilities	479.8	479.2
	All Students	499.0	500.5		All Students	498.8	498.4

Figures 9 and 10 show the changes in average scaled scores, from 2017 to 2018, for English learners and students with disabilities. For comparison, the figures also display data for students who are not in these programs. In the figures, blue bars represent a positive change in average scaled scores for the two-year period. Red bars represent negative change.

Figure 9: Average ELA Scaled Score Point Change, 2017 to 2018, for Special Student Groups

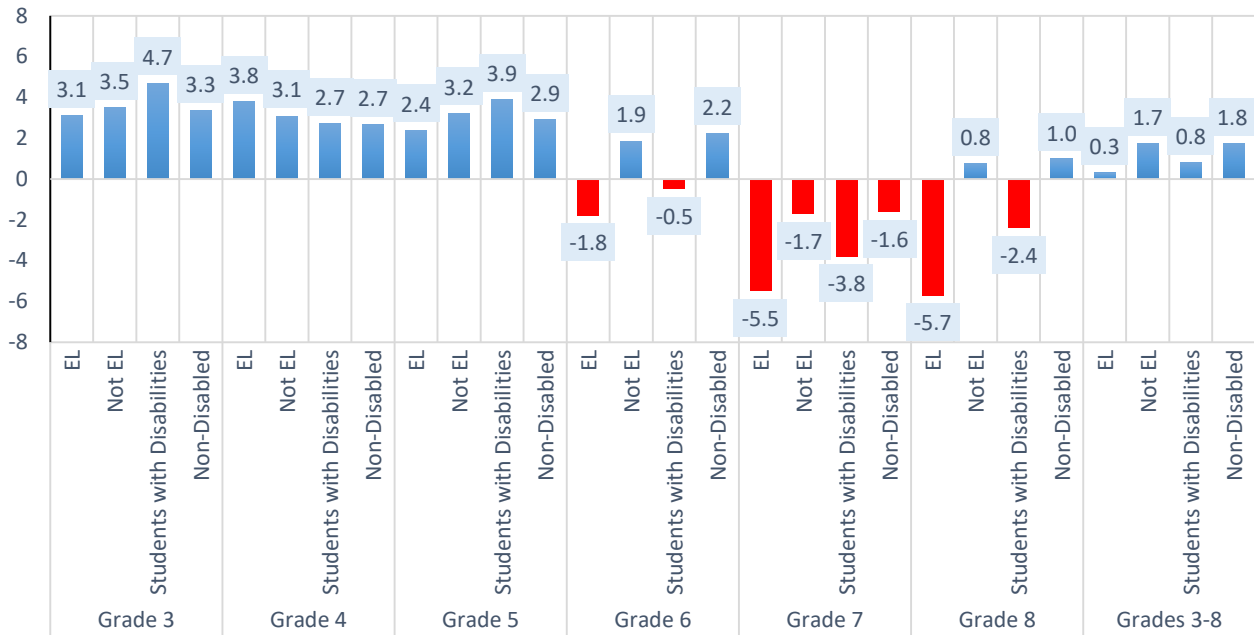
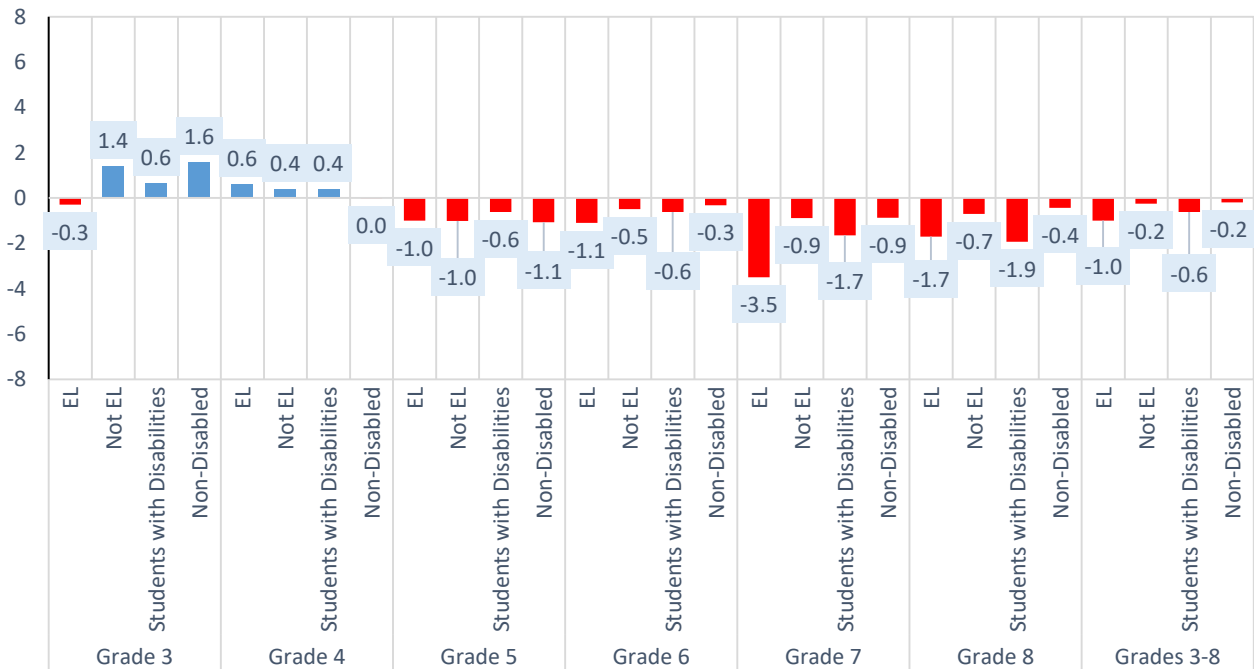


Figure 10: Average Mathematics Scaled Score Point Change, 2017 to 2018, for Special Student Groups



IV. Statewide Achievement Gaps

In 2010, Massachusetts passed legislation requiring the state to monitor achievement gaps and authorizing the Department of Elementary and Secondary Education to take steps to intervene and attempt to close those gaps through its school accountability and assistance programs.

This section presents information about academic achievement gaps in Massachusetts through 2018. The Department defines an achievement gap as a disparity in academic performance between two demographic groups. The figures and tables displayed here identify achievement gaps that are based on race, special education status, or English learner status.

For the next-generation ELA and Mathematics tests at grades 3–8, achievement gaps are measured in this report using the MCAS average scaled score for each group. Because next-generation test scores cannot be directly compared to scores from legacy MCAS tests, reporting on achievement gaps for next-generation tests is limited to data from the 2017 and 2018 administrations.

For all high school tests and the grades 5 and 8 STE tests, achievement gaps are measured in this report based on the percentage of students in each group scoring *Proficient* or higher. Because results from these tests continue to be reported using legacy MCAS achievement levels, we are able to report on trends in the achievement gaps over a longer timeframe.

Achievement Gaps on Next-Generation Tests

The figures below show the size of the achievement gaps, in average scaled score (SS) points, for the 2017 and 2018 next-generation tests at grades 3–8. Figure 11 displays the ELA achievement gaps, and Figure 12 displays the Mathematics achievement gaps. See Tables 9 and 10 in section III for data showing the actual average scaled scores for each group.

Figure 11: 2017 and 2018 ELA Achievement Gaps, Grades 3-8

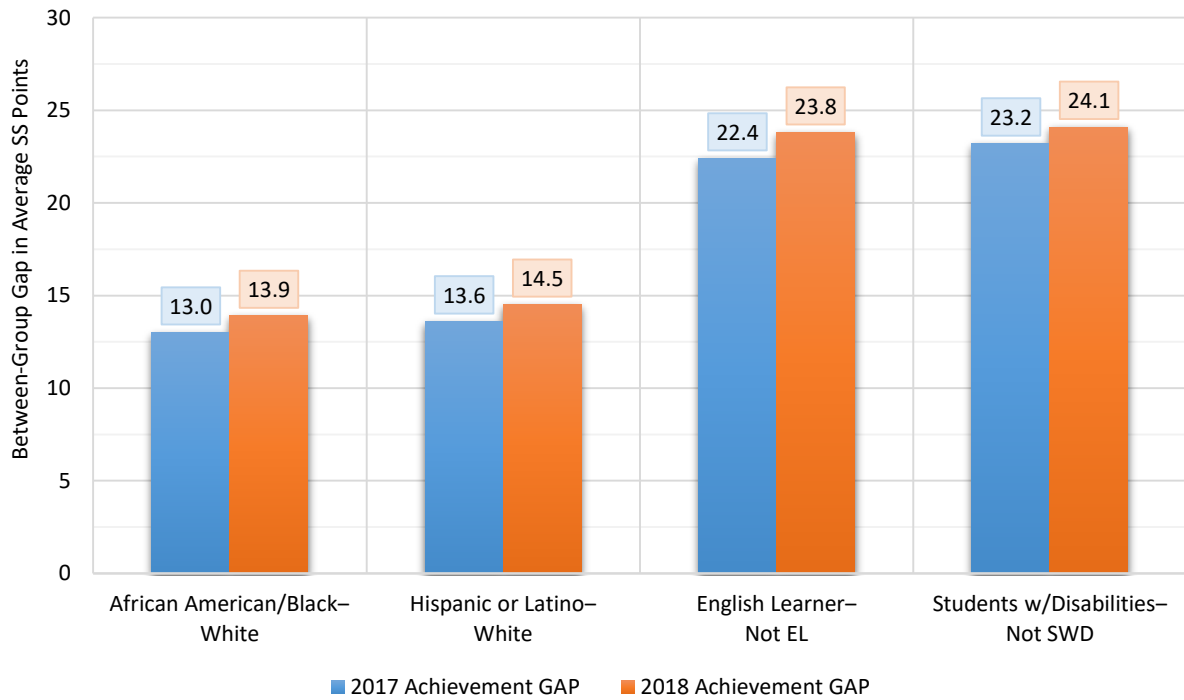
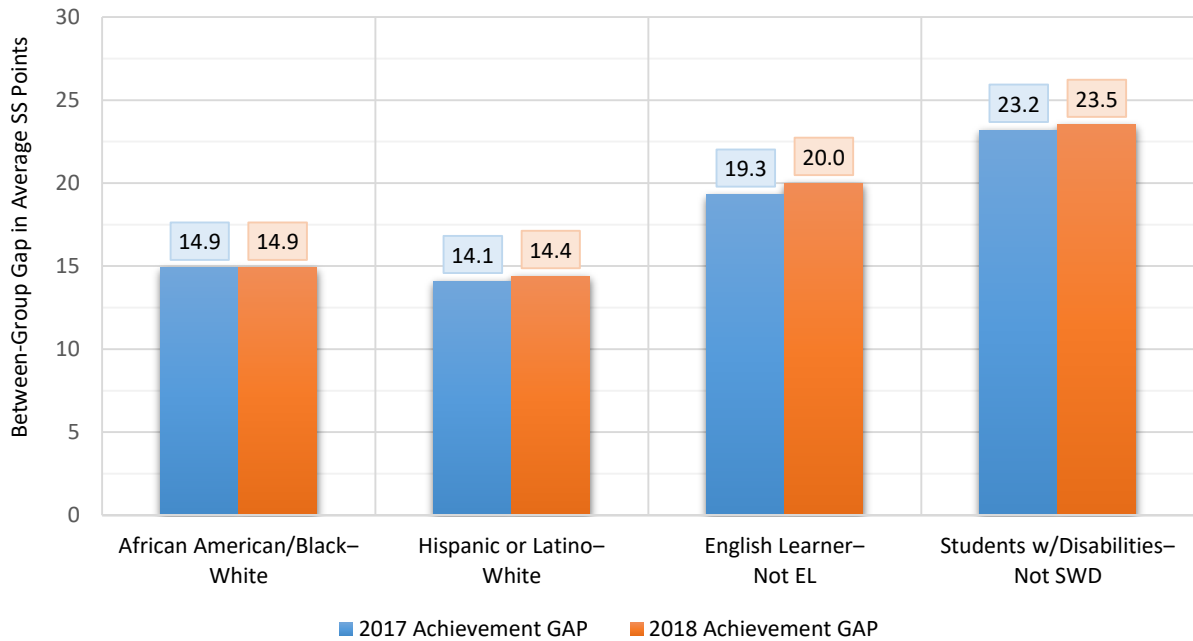


Figure 12: 2017 and 2018 Mathematics Achievement Gaps, Grades 3-8



Achievement Gaps on Legacy Tests

Tables 11 and 12 summarize changes that occurred between 2007 and 2018 in the achievement gaps between African American/Black students and white students, and between Hispanic or Latino students and white students, on legacy MCAS tests. Data for 2017 are included to illustrate the one-year trend.

Table 11: 2007–2018 Change in Statewide Achievement Gaps between African American/Black Students and White Students									
Grade/ Test	African American/Black			White			Eleven-Year Between-Group Gap		
	Percentage of Students Scoring Proficient or Higher						2007	2018	Between-Group Gap Change, 2007–2018 ^a
	2007	2017	2018	2007	2017	2018			
5 STE	20	24	25	59	54	56	39	31	-8
8 STE	8	16	13	39	47	42	31	29	-2
10 ELA	46	84	85	77	95	94	31	9	-22
10 Math	45	61	60	75	86	85	30	25	-5
10 STE	n/a	53	55	n/a	82	82	n/a	27	n/a

^a Negative value represents narrowing of between-group gap; positive value represents widening of gap.

Table 12: 2007–2018 Change in Statewide Achievement Gaps between Hispanic or Latino Students and White Students									
Grade/ Test	Hispanic or Latino			White			Eleven-Year Between-Group Gap		
	Percentage of Students Scoring <i>Proficient</i> or Higher						2007	2018	Between-Group Gap Change, 2007–2018 ^a
	2007	2017	2018	2007	2017	2018			
5 STE	20	26	27	59	54	56	39	29	-10
8 STE	7	18	15	39	47	42	32	27	-5
10 ELA	43	78	78	77	95	94	34	16	-18
10 Math	42	57	56	75	86	85	33	29	-4
10 STE	n/a	50	51	n/a	82	82	n/a	31	n/a

^a Negative value represents narrowing of between-group gap; positive value represents widening of gap.

Tables 13 and 14 summarize changes that occurred between 2007 and 2018 in the achievement gaps between students with disabilities and all students, and between English learner students and all students, on legacy MCAS tests.

**Table 13: 2007–2018 Change in Statewide Achievement Gaps
between Students with Disabilities and All Students**

Grade/ Test	Students with Disabilities			All Students			Eleven-Year Between-Group Gap		
	Percentage of Students Scoring Proficient or Higher						2007	2018	Between-Group Gap Change, 2007–2018 ^a
	2007	2017	2018	2007	2017	2018			
5 STE	21	17	18	51	46	47	30	29	-1
8 STE	7	10	9	33	40	35	26	26	0
10 ELA	30	69	69	71	91	91	41	22	-19
10 Math	31	41	40	69	79	78	38	38	0
10 STE	n/a	39	39	n/a	74	74	n/a	35	n/a

^a Negative value represents narrowing of between-group gap; positive value represents widening of gap.

**Table 14: 2007–2018 Change in Statewide Achievement Gaps
between English Learner Students and All Students**

Grade/ Test	EL Students			All Students			Eleven-Year Between-Group Gap		
	Percentage of Students Scoring Proficient or Higher						2007	2018	Between-Group Gap Change, 2007–2018 ^a
	2007	2017	2018	2007	2017	2018			
5 STE	10	9	10	51	46	47	41	37	-4
8 STE	3	3	2	33	40	35	30	33	+3
10 ELA	13	41	45	71	91	91	58	46	-12
10 Math	27	26	28	69	79	78	42	50	+8
10 STE	n/a	14	18	n/a	74	74	n/a	56	n/a

^a Negative value represents narrowing of between-group gap; positive value represents widening of gap.

V. Student Enrollment and Participation

This section profiles the statewide student population that was eligible to participate in MCAS testing in 2018 and summarizes changes to the population between 2017 and 2018. Participation rates for the spring 2018 tests are also presented.

2018 Student Enrollment

Figure 13 shows the 2018 statewide student enrollment in grades 3–8 and 10 by race/ethnicity. Table 15 shows the two-year enrollment changes in those grades levels for racial/ethnic groups and other student groups.

Figure 13: 2018 Student Enrollment in Grades 3–8 and 10 by Race/Ethnicity

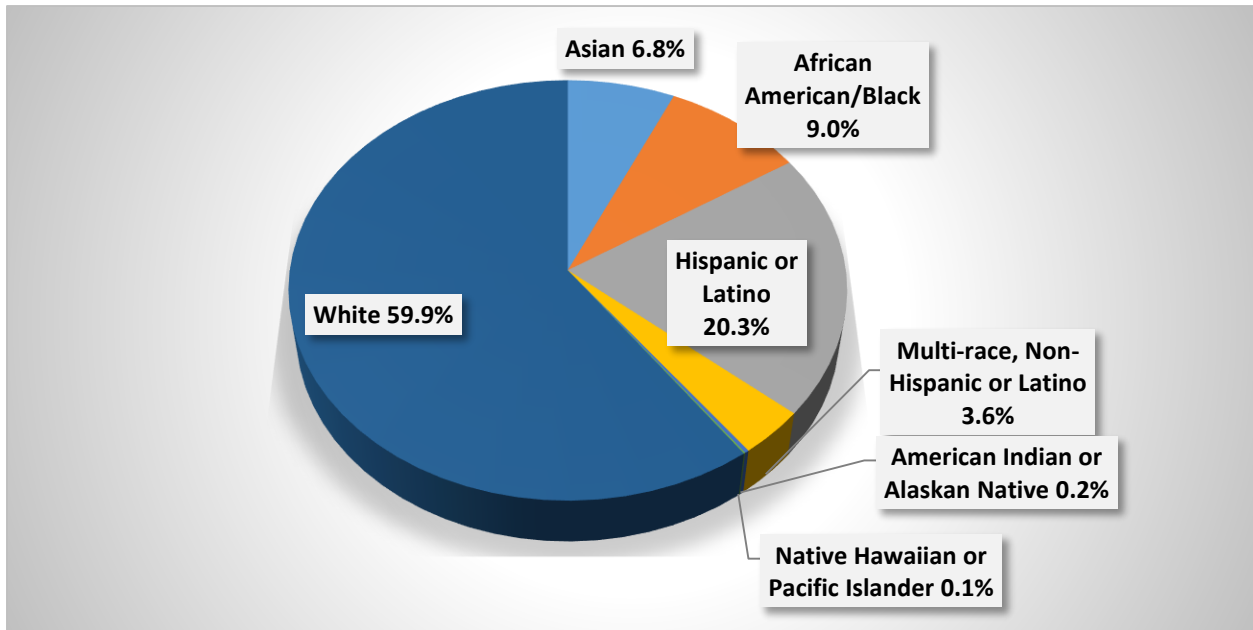


Table 15: Two-Year Enrollment Changes in Grades 3–8 and 10

Race/Ethnicity	2017 Enrolled Students	2018 Enrolled Students	Percent Group Change
Asian	33,796	34,558	+2.3%
African American/Black	44,641	45,863	+2.7%
Hispanic or Latino	98,515	103,177	+4.7%
Multi-race, Non-Hispanic or Latino	17,311	18,239	+5.4%
American Indian or Alaskan Native	1,144	1,114	-2.6%
Native Hawaiian or Pacific Islander	400	448	+12.0%
White	311,470	304,214	-2.3%
Total	507,277	507,613	+0.1%

Other Student Groups	2017 Enrolled Students	2018 Enrolled Students	Percent Group Change
Male	259,956	260,342	+0.2%
Female	247,288	247,208	-<0.1%
English Learner	44,511	48,798	+9.6%
Economically Disadvantaged	162,036	172,553	+6.5%
Students with Disabilities	96,203	98,047	+1.9%

2018 Participation Rates

Table 16 presents information on the number and percentage of enrolled students who participated in the spring 2018 MCAS tests. The figures include participation rates for all enrolled students educated with public funds, including regular education students, students with disabilities, and EL students. As in previous years, participation rates were very high, ranging from 98 to 100 percent.

Table 16: Number and Percentage of Enrolled Students Tested, Spring 2018

Grade	English Language Arts		Mathematics		Science and Technology/Engineering ^a	
	Number	Percent	Number	Percent	Number	Percent
Grade 3	70,419	99	70,509	100		
Grade 4	72,854	99	72,875	100		
Grade 5	73,120	99	73,146	100	73,032	99
Grade 6	71,875	99	71,875	99		
Grade 7	71,553	99	71,525	99		
Grade 8	72,650	99	72,652	99	72,461	99
Grade 10	71,446	98	71,033	98	71,881	99

^aGrade 10 STE figures include students in the class of 2020 who participated in an STE test in grade 9 in 2017 or grade 10 in 2018; only students continuously enrolled in Massachusetts public schools from fall of grade 9 through spring of grade 10 are included.

How is participation calculated?

Participation rates indicate the number of students who participated in standard MCAS tests and the MCAS Alternate Assessment (MCAS-Alt) divided by the number of students enrolled on the date the tests were administered. EL students enrolled in U.S. schools for the first time were not required to take ELA tests; however, they were reported in ELA school and district participation rates based on their participation in the ACCESS for ELLs (Assessing Comprehension and Communication in English State-to-State for English Language Learners) tests. The Department used ACCESS for ELLs testing for state and federal accountability purposes, which require that all EL students, with the exception of students for whom an accommodation was not available, participate in the EL assessment.

Students absent during testing, including those with medical excuses, were counted against school and district participation as non-participants. A student is neither a participant nor a non-participant (i.e., is excluded from both the numerator and the denominator in participation rate calculations) if all of the following statements are true: (1) the student transferred during the testing window (between the first day of ELA testing and the last day of testing for Mathematics or STE), (2) the student missed at least

one entire session of the test in question, and (3) the student was not medically excused or absent for the test in question.

How are absent students treated in MCAS performance results?

The federal Elementary and Secondary Education Act requires that absent students be counted as non-participants for school and district accountability calculations. Schools are placed in a lower accountability level if their participation rates fall below 95% in the aggregate or for a subgroup over a two-year period.

VI. Competency Determination Attainment Results

The Class of 2003 was the first graduating class in Massachusetts that was required to earn a Competency Determination (in addition to meeting local requirements) to be eligible to graduate from high school. In order to earn a Competency Determination (CD), students in the classes of 2003–2009 were required to earn a scaled score of 220 (*Needs Improvement*) or higher on the grade 10 MCAS tests or retests in ELA and Mathematics.

Beginning with the Class of 2010, in order to earn a CD, students must **either** earn a scaled score of 240 (*Proficient*) or higher on the grade 10 MCAS ELA and Mathematics tests or retests **or** earn a score of 220–238 on the grade 10 MCAS ELA and Mathematics tests or retests and fulfill the requirements of an Educational Proficiency Plan (EPP).

Each EPP must include, at a minimum,

- a review of the student’s strengths and weaknesses, based on MCAS and other assessment results, coursework, grades, and teacher input;
- the courses the student will be required to take and successfully complete in grades 11 and 12; and
- a description of the assessments the school will administer on a regular basis to determine if the student is moving toward proficiency. (For 2017–2018, the assessment options included locally developed end-of-course assessments, locally scored grade 10 MCAS test forms designed for the EPP, the March 2018 MCAS retest in ELA only, and College Board’s Accuplacer.)

Students in the Class of 2010 and beyond must also earn a score of 220 (*Needs Improvement*) or higher on one of four high school MCAS tests in Science and Technology/Engineering (Biology, Chemistry, Introductory Physics, or Technology/Engineering) to be eligible to receive a high school diploma. In addition, students must meet all local requirements in order to graduate.

Table 17 displays the cumulative percentage of all students and student groups in the Class of 2020 who have already met or partially met the MCAS requirement for graduation by performing at the *Needs Improvement* level or higher in ELA, Mathematics, and STE through the spring 2018 test administration. In 2018, 87 percent of students in the Class of 2020 performed at the *Needs Improvement* level or higher in all three subjects by the end of grade 10.³

³ The achievement figures for students in the Class of 2020 may be lower than the corresponding figures for grade 10 students cited elsewhere in this report because the figures for students in the Class of 2020 include students participating in a retest administration (primarily students retained in grade) while those for grade 10 students include first-time spring MCAS administration testers only.

Table 17: Percentage of Students in Class of 2020 Scoring *Needs Improvement* or Higher in ELA, Mathematics, and STE through the Spring 2018 Administration

Subgroup	Class of 2020					Class of 2019 ^a	Class of 2018 ^a
	ELA	Math	ELA and Math	STE	All Three Tests	All Three Tests	All Three Tests
All Students	95	90	89	93	87	88	88
Gender							
Female	96	92	91	94	89	89	89
Male	94	88	87	92	86	86	86
Race/Ethnicity							
African American/Black	92	83	81	87	78	78	78
Asian	97	96	94	96	93	93	93
Native Hawaiian or Pacific Islander	100	93	93	93	88	84	91
Hispanic or Latino	88	77	75	83	72	71	71
Multi-Race, Non-Hispanic or Latino	97	91	91	95	89	89	88
Amer. Ind. or Alaskan Nat.	93	88	87	89	84	86	81
White	97	94	93	96	93	93	93
Student Status							
High Needs ^b	89	79	77	85	74	74	73
Non-Disabled	97	95	94	96	92	93	93
Students with Disabilities	85	68	67	79	64	64	63
English Learner (EL)	71	58	50	62	44	40	41
Former EL	97	90	89	93	87	86	82
EL and Former EL	81	69	64	73	59	54	53
Economically Disadvantaged ^c	90	80	78	86	75	75	76
^a To provide comparable data, results for the Classes of 2019 and 2018 are based on MCAS tests through the spring 2017 and spring 2016 administrations, respectively.							
^b Beginning in 2015, the High Needs group includes students with disabilities, English learner and former English learner students, and economically disadvantaged students.							
^c Beginning in 2015, the Economically Disadvantaged student group replaced the Low Income student group.							

Table 18 shows the number and cumulative percentage of students in the Class of 2020 who have already fully met the CD standard by performing at the *Proficient* level or higher in both ELA and Mathematics and by performing at the *Needs Improvement* level or higher in STE, through the spring 2018 test administration. The table also shows the number and percentage of students who have met individual components of the CD requirement.

Table 18: Number and Percentage of Students in Class of 2020 Scoring *Proficient* or Higher in ELA and Mathematics and *Needs Improvement* or Higher in STE through the Spring 2018 Administration

CD Requirement	Number	Percent
Earned CD	53,343	74
ELA and Mathematics <i>Proficient</i> or Higher	53,535	74
ELA <i>Proficient</i> or Higher	63,690	88
Mathematics <i>Proficient</i> or Higher	54,605	76
STE <i>Needs Improvement</i> or Higher	66,978	93